



## **Middle School Robotics Program a Highlight of the District**

When it comes to student learning and learning of content, the East Troy Community School District continues to improve upon learning environments that support the necessary skills of critical thinking, creativity, collaboration, and communication toward ensuring high student motivation. District Administrator, Dr. Chris Hibner believes that any and all aspects of school learning environments must support and embed the additional 4 C's. "Schools have been often viewed as knowledge / content arenas. However, to ensure our children are truly prepared for a globalized world that is changing exponentially, we must have learning environments that support our students to be creative and innovative. We must continue to increase their knowledge, but as important, we must equip and support them with skills and tools to allow them to discover, imagine, design, and create."

In 2013, East Troy Middle School kicked off its Robotics program with the goal of offering courses and programming to students that would support knowledge and the additional 4C's. Since then, the program has grown tremendously, with three years of robotics classes now being offered, including a required course for all 6th grade students and electives for 7th and 8th graders.

"The Robotics program has moved East Troy Middle School into 21st century learning," said Peter Syens, Principal of ETMS. "I am extremely happy we have teachers at our building that took the opportunity to step outside the traditional learning methods of teaching and embrace our district's initiatives."

The teachers in the Robotics program are Amanda Kimball, Gary Lilla, Brian Schaefer, Connor Harris, James Johnson and Michael Clark. Kimball and Lilla created the curriculum for the program, and are both major proponents of the skills offered through its courses.

"Robotics incorporates components of working in a group and collaborating, open-ended problem solving, thinking outside the box, and project-based learning applying to real world situations," said Kimball. "It also introduces students to basic programming skills and concepts."

The students have clearly bought in, as evidenced by the growth in the program over the last several years. Even in the elective years of 7th and 8th grade, a majority of every age group is enrolled in Robotics courses. Kimball and Lilla stated they have had positive feedback from students about the classes, and Syens agrees.

"I've personally observed students struggle with not completing a task during a lesson, work through the issue with their partners, devise a plan to adjust, execute the alternative plan and realize success," Syens said. "Not only do I see student engagement from the Robotics courses, but I've seen a revitalization with some of our teachers in this role of facilitator. They spent countless hours outside the school day working to enhance the program with community and global partners."

Those partners have also been key in supporting the growth of the program. The school received a \$30,000 grant from Argosy Foundation to be put toward its Robotics department.

Representatives from FLL (First Lego League) also visited the school to see how the program was being developed so they would be able to incorporate it into other schools.

"We've been fortunate to have a family in the community, Meg and Shawn Hunter, who participated in FLL (First Lego League) and FTC (First Tech Challenge) to help the Middle School develop and promote the program," said Lilla. Dr. Hibner is also quick to share the praise of the Hunter's. "Without them starting a team, bringing forth an idea and sharing this idea, without their assistance throughout the development, our entire middle school population would not be having this experience." "We owe them and many other people a great deal of gratitude for helping us to provide learning opportunities to our students," stated Dr. Hibner.

As the program continues to grow, Kimball and Lilla remain focused on providing an outstanding experience for their students.

"Right now, our biggest goal is getting kids excited by using the robots and preparing them with enough skills and knowledge to be successful in the high school," said Lilla. "We're laying the foundation for what's ahead for them, and so far they've responded really well."

Finally, Dr. Hibner and Mr. Syens praise the instructors that were willing to take on this new challenge. "They are representing the exact learning environment we want for our children. A learning environment that is fluid and always working on design and putting this design into action. Sometimes it is a success and sometimes we must adjust, but learning is constantly occurring."